

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An electric motor for a linear drive system comprising a motor housing within which a stator, a rotor and a threaded shank are accommodated, the stator having a stator core and plurality of phase windings each connected to one of a plurality of phase connectors, the rotor being mounted onto a rotor hub, the rotor hub being supported in the motor housing by at least one roller bearing and coupled to the threaded shank to transform the rotation of the rotor into a translational motion of the threaded shank,

wherein the motor housing includes [[an]] a single injection molded part within which the stator, together with the stator core and the phase windings, are fully embedded; and wherein a linear guide is integrated with the injection molded part of the motor housing, the linear guide configured to accommodate and guide the threaded shank.
2. (Previously Presented) An electric motor according to claim 1, further comprising a stopper for positioning the threaded shank, the stopper being integrated into the injection molded part of the motor housing.
3. (Previously Presented) An electric motor according to claim 2, wherein the phase connectors are embedded in the injection molded part of the motor housing.
4. (Original) An electric motor according to claim 1, wherein the threaded shank has an outer thread and the rotor hub has an inner thread which interact with each other.
5. (Original) An electric motor according to claim 4, wherein the rotor hub includes an injection molded part within which the rotor is embedded.
6. (Previously Presented) An electric motor according to claim 2, wherein bearing supports for the roller bearings are integrated into the injection molded part of the motor housing.
7. (Cancelled)

8. (Previously Presented) An electric motor for a linear drive system comprising a motor housing for receiving a stator, a rotor and a threaded shank, the rotor being mounted on a rotor hub, the rotor hub being supported in the motor housing by a plurality of roller bearings and coupled to the threaded shank via a thread to transform the rotation of the rotor into a translational motion of the threaded shaft,

wherein the rotor hub includes an injection molded part within which the rotor is fixed, and the injection molded part of the rotor hub has an inner thread which interacts with an outer thread of the threaded shank; and

wherein the rotor has two pole plates which are separated by a permanent magnet, the pole plates and the permanent magnet being held and positioned in the injection molded part of the rotor hub.

9. (Previously Presented) An electric motor according to claim 8, wherein a plurality of bearing supports for the roller bearings are integrated into the injection molded part of the rotor hub.

10. (Previously Presented) A linear actuator having an electric motor according to claim 1, wherein the electric motor is a hybrid stepping motor.

11. (Cancelled)

12. (Previously Presented) An electric motor according to claim 2, wherein the stopper interacts with linear guide.

13. (Previously Presented) An electric motor according to claim 2, a motor flange is molded onto the injection molded part of the motor housing.

14. (Previously Presented) A linear actuator having an electric motor according to claim 8, wherein the electric motor is a hybrid stepping motor.